

AMENDMENTS TO THE DRAWINGS

Applicants respectfully submits a replacement drawing sheet for Fig. 1 in compliance with 37 C.F.R. § 1.121(d). The Examiner is requested to approve the replacement drawing sheet submitted herewith.

Attachment: One (1) Replacement Sheet (Fig. 1)

REMARKS

Claims 1-35 are all the claims pending in the application. Claims 5 and 24 are hereby canceled by this Amendment without prejudice or disclaimer.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 7-19 and 25-30 would be allowed if rewritten in independent form including all of the limitation of the base and any intervening claims.

Applicants have rewritten claims 7, 8, 9, 15, 25, 28 and 29 in independent form. Further, because claims 10-14, 16-19, 26, 27 and 30 dependent from these allowable claims, Applicants submit claims 7-19 and 15-30 are in condition for immediate allowance.

Drawing Objections

The Examiner objected to Figure 1 indicating that this figure should be identified with a “Prior Art” label. Applicants respectfully submit that the replacement figure submitted herewith obviates this rejection.

Claim Rejections – 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 1, 4, 24 and 31-32 under 35 U.S.C. § 112, second paragraph, as being indefinite.

Regarding claim 1, the Examiner contends it is not clear how a cooling unit liquid flow path can be a first flow path and a second flow path. Applicants respectfully submit the present amendment to claim 1 obviates this rejection.

Regarding claim 4, the Examiner contends it is unclear what is meant by “an air cooling unit is disposed an air cooling fin group for exhausting heat . . .” Applicants respectfully submit the present amendment to claim 4 obviates this rejection.

Regarding claim 24, this rejection is moot in view of the cancellation of this claim.

Claim Rejections 35 U.S.C. § 102(b)

The Examiner rejected claims 2, 6, 20 and 35 under § 102(b) as being anticipated by Batchelder (US 6,019,165). Applicants respectfully traverse this rejection as follows.

Applicants respectfully submit Batchelder fails to disclose, at least, “wherein the liquid cooling pump and the liquid cooling unit are integrated in a single unit of a metal material,” as recited in claim 2. In particular, because the impeller 54 and the metallic fin array are separate and distinct components, they are not integrated in single unit of a metal material. Thus, Applicants submit Batchelder fails to disclose all the features recited in claim 2.

Thus, Applicants submit claim 2 is patentably distinguishable for at least this reason. Additionally, Applicants submit claims 6, 20 and 35 are patentably distinguishable, at least by virtue of their dependency.

Claim Rejections - 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 3, 20, 21, 33 and 34 under § 102(b) as being anticipated by Reichard (US 5,316,077).

Applicants respectfully submit Reichard fails to disclose, at least, “wherein the liquid cooling pump and the liquid cooling unit are integrated in a single unit of a metal material,” as recited in claim 1. In particular, because the pump assembly 54 and the coolant passages 22 are formed in different components (see Fig. 3), they are not integrated in single unit of a metal material. Thus, Applicants submit Reichard fails to disclose all the features recited in claim 1.

Thus, Applicants submit claim 1 is patentably distinguishable for at least this reason. Additionally, Applicants submit claims 3, 20, 21, 33 and 34 are patentably distinguishable, at least by virtue of their dependency.

Claim Rejections - 35 U.S.C. § 102(e)

The Examiner rejected claims 1, 2, 3, 4, 20, 21 and 33-35 under § 102(b) as being anticipated by Nelson.

Applicants respectfully submit Nelson fails to disclose, at least, “wherein the liquid cooling pump and the liquid cooling unit are integrated in a single unit of a metal material,” as recited in claim 1. In particular, Nelson discloses a flexible integrated cooling system 300 as shown in FIG. 3. Furthermore, Nelson discloses this system is comprised of three layers, including: a top metal layer 305A, a bottom metal layer 305B, and a center layer 305C disposed between the top and bottom layers, which is made of a plastic material. (col. 5, lines 5-15). These layers are glued together to form a tape. (col. 5, lines 3--34). Accordingly, Nelson fails to disclose a liquid cooling pump and a liquid cooling unit integrated in a single unit of metal material.

Thus, Applicants submit claim 1 is patentably distinguishable over Nelson for at least this reason. Additionally, because claim 2 recites a feature similar to the feature discussed above with regard to claim 1, Applicants submit claim 2 is allowable for the same reasons set forth above. Finally, claims 3, 4, 20, 21 and 33-35 are allowable, at least by virtue of their dependency.

Double Patenting

The Examiner’s comments here are moot in view of the amending of claim 32 by this Amendment.

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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Emery', written over a horizontal line.

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